

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An audio conditioning apparatus ~~(190)~~ for conditioning an audio signal ~~(0)~~ to be output, said audio conditioning apparatus comprising:

an input for receiving the audio signal;

5 - a noise characterizing unit ~~(106, 112)~~ ~~arranged to evaluate for determining~~ a noise level ~~(NM)~~ of environmental noise; ~~and~~

- a volume amplification unit ~~(140)~~ ~~arranged to amplify coupled to said input for amplifying~~ a volume of the audio signal ~~(0)~~ by a volume gain ~~(GV)~~, ~~depending in dependence~~ on the noise level; ~~(NM)~~, ~~characterized in that~~

10 - a further noise characterizing unit ~~(110, 116)~~, ~~(108, 114)~~ ~~is comprised, arranged to evaluate for determining~~ a further noise level ~~(NL or NH)~~ of the environmental noise in a bass frequency noise band ~~(111)~~ or a treble frequency noise band; ~~(109)~~, and

15 - a further amplification unit ~~(150 or 152)~~ ~~is comprised, arranged to amplify coupled to said volume amplification unit for amplifying~~ by a further gain ~~(GB or GT)~~ the amplitude of frequency components in a bass frequency audio band ~~(202)~~ ~~respectively or~~ a treble frequency audio band ~~(206)~~ of the audio signal ~~(0)~~, in dependence of the further noise level ~~(NL respectively NH)~~ in the base or treble frequency band, respectively,

20 wherein said audio conditioning apparatus further comprises:

25 | a gain dispatcher unit coupled to said input for  
| allocating a maximum allowable gain of the volume amplification  
| unit and the further amplification unit on the basis of available  
| headroom for amplification.

| 2. (Currently Amended) ~~An~~ The audio conditioning apparatus  
| ~~(190) according to~~ as claimed in claim 1, wherein an upper limit of  
| the bass frequency audio band ~~(202)~~ substantially lies in the range  
| of 60 to 150 Hz, and wherein a lower limit of the treble frequency  
5 | audio band substantially lies in the range of 8kHz to 12 kHz.

| 3. (Currently Amended) ~~An~~ The audio conditioning apparatus  
| ~~(190) according to~~ as claimed in claim 1, wherein said audio  
| conditioning apparatus further comprises:  
| a gain consistency unit ~~(124, 126, 128)~~ is comprised  
5 | ~~arranged to yield~~ coupled to said noise characterizing unit and said  
| further noise characterizing unit for yielding a gain ~~(GV, GB, GT)~~  
| consistently varying in time, according to a predetermined  
| mathematical criterion.

| 4. (Cancelled).

| 5. (Currently Amended) ~~An~~ The audio conditioning apparatus  
| ~~(190) according to~~ as claimed in claim 1, wherein the further  
| amplification unit ~~(150 or 152)~~ comprises a shelving filter.

6. (Currently Amended) ~~An~~The audio conditioning apparatus  
~~(190) according to~~as claimed in claim 1, wherein said audio  
conditioning apparatus is connectable to a headphone loudspeaker  
usable for reproduction of the audio signal ~~( $\theta$ )~~, and wherein said  
5 audio conditioning apparatus further comprises an active noise  
canceling unit ~~(540) is comprised arranged to~~for substantially  
~~cancel~~cancelling environmental noise in a cancellation band of  
frequencies, the environmental noise being measurable by a  
microphone ~~(104)~~.

7. (Currently Amended) ~~An~~The audio conditioning apparatus  
~~(190) according to~~as claimed in claim 6, wherein said audio  
conditioning apparatus further comprises a distance measuring  
device ~~(599) is comprised arranged to measure~~for measuring a  
5 distance between the microphone ~~(104)~~ and the headphone  
loudspeaker.

8. (Currently Amended) An audio reproduction apparatus,  
comprising:

- a loudspeaker ~~(160)~~ for reproduction of ~~the~~ an audio  
signal ~~( $\theta$ )~~;
- 5 - an access ~~(102)~~ to an input audio signal ~~(i)~~ on which the  
audio signal ~~( $\theta$ )~~ is based; and
- ~~an~~ the audio conditioning apparatus ~~(190)~~ as claimed in  
claim 1.

9. (Currently Amended) A method of conditioning an audio signal  $\Theta$ , ~~comprising the steps of:~~

- ~~evaluating~~ determining a noise level  $\text{NM}$  of environmental noise; ~~and~~

5 - amplifying a volume of the audio signal  $\Theta$  by a volume gain  $\text{GV}$ , ~~depending in dependence~~ on the noise level;  $\text{NM}$ , ~~characterized in that~~

- determining a further noise level  $\text{NL}$  ~~or  $\text{NH}$~~  of the environmental noise in a bass frequency noise band or a treble

10 frequency noise band ~~is evaluated,~~ and

- ~~the amplitude of~~ amplifying frequency components in a bass frequency audio band ~~respectively or~~ a treble frequency audio band of the audio signal  $\Theta$  ~~is amplified by~~ a further gain  $\text{GB}$ ,  $\text{GT}$ , ~~in dependence of the further noise level  $\text{NL}$ ,  $\text{NH}$  in the bass frequency~~  
15 noise band or the treble frequency noise band, respectively,

wherein said method further comprises the step of:

allocating a maximum allowable gain of said amplifying steps on the basis of available headroom for amplification.

10. (Currently Amended) A computer readable medium containing a computer program product enabling a processor to execute the method of as claimed in claim 9.